

AgriAs: Presentation of the site in France

The sampling site is a former chemical ammunition breaking-down facility of the interwar period near Verdun, France. It is one of the most important historical areas of chemical ammunition destruction of WW I. Some German chemical shells (called “Blue Cross” shells) used during the Great War contained emetic arsenical chemical warfare agents. Two areas of the site were dedicated to the destruction (open-burning, open-detonation) of “Blue-cross” ammunition causing severe arsenic contamination of the topsoil. The site is now located in a sensitive zone for agriculture (barley, maize) and groundwater.

The field was used as a pasture in 2002, and was cultivated from 2002 to 2015. Since 2015, it is a fallow ground because cultivation was forbidden when the pollution was detected.



Overview of the sampling site on May 2017.



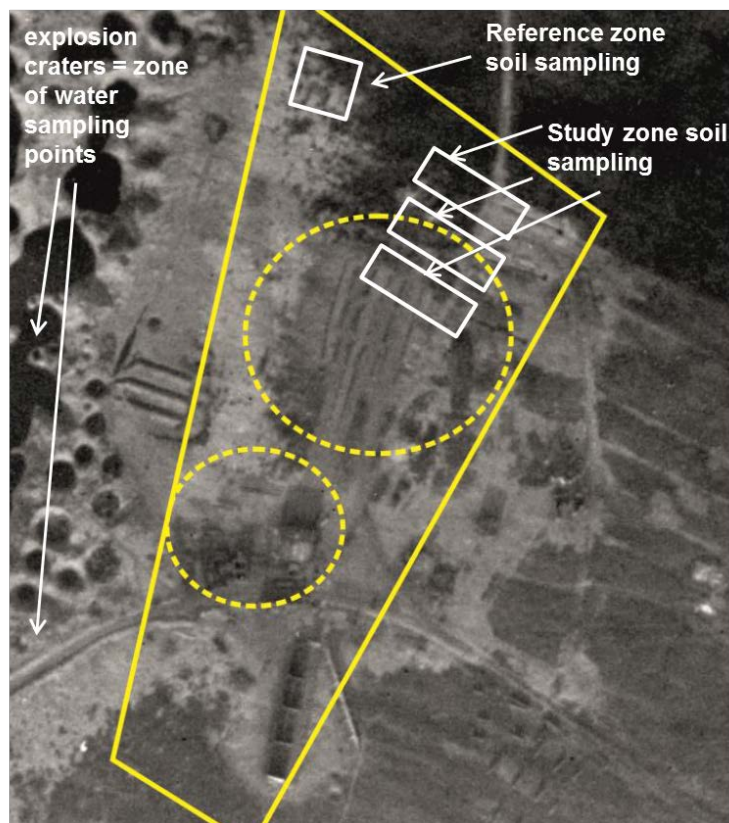
Vegetation in a polluted zone of the site.



Vegetation in the non-polluted “reference” zone of the field.

The zones of soil and water sampling are shown on the photo below. It is taken in 1922, when the weapon destruction plant was still working.

In 1922 (source D. Hube, BRGM)



Location of the water and soil sampling areas. The water-containing ponds observed in 2017, now hidden in a forest, were formed when weapons were destroyed by explosion on the border of the field.



Picture of the “spring” water sampling point



Picture of the “pond” water sampling point